

$$\textcircled{1} m = \frac{y_2 - y_1}{x_2 - x_1}, \quad y = m(x - x_1) + y_1$$

$$\frac{1-7}{5-3} = \frac{-6}{2} = \textcircled{-3}$$

$$y = -3(x - \underline{5}) + \underline{1}$$

1) Find the linear equation between the points (3, 7) and (5, 1).

2) A local community college surveys selected members of the class of 2009. Of the 254 who graduated that year, 172 were women, 124 of whom went on to a 4-year college. Of the male graduates, 58 went on to a 4-year college. What is the probability of each event below?

a) The person surveyed is female?

$$\frac{172}{254}$$

	males	Females
Totals	82	172
4yr.	58	<u>124</u>

b) The person surveyed went on to a 4-yr college?

$$\frac{182}{254}$$


c) The person is female and went on to a 4-yr. college?

$$\frac{124}{254}$$

Sect. 5.3


#1-3

$$y = m(x - \underline{x_1}) + \underline{y_1}$$


  
point  
( $x_1, y_1$ )

①

②  $y = 3 + \underline{4}(x - 5)$


  
slope 4

point (5, 3)

③ slope -3.47  
point (7, -2)

④

slope 2  
point (-3.1, 1.9)

⑤

slope = -1.38  
point = (2.5, 5)

$$(-2, -1) (5, 13)$$

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

$$m = \frac{13 - -1}{5 - -2} = \frac{14}{7} = 2$$

$$y = 2(x - -2) - 1$$

$$y = 2(x - 5) + 13$$

HW

5.3 #10a-c, 11

- Turn in classwork
- Turn in Calc.